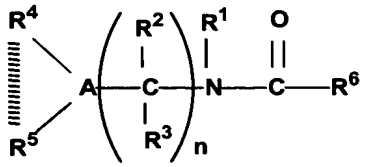
CLAIMS

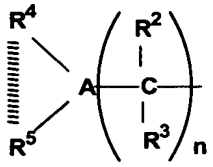
1. A method for preparing a polyurethane foam which comprises reacting an organic polyisocyanate and a polyol in the presence of water as a blowing agent, a cell stabilizer, and a tertiary amino alkyl amide catalyst composition represented by the formula I:



(I)

wherein A represents CH or N;

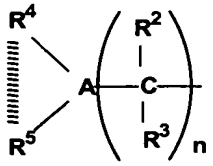
R^1 represents hydrogen or



n is an integer from 1 to 3;

R^2 and R^3 each represent hydrogen or a C_1-C_6 linear or branched alkyl group;

R^4 and R^5 each represent a C_1-C_6 linear or branched alkyl group when A represents N, or together R^4 and R^5 represent a C_2-C_5 alkylene group when A represents N; or together R^4 and R^5 may be a C_2-C_5 alkylene group containing NR^7 when A represents CH or N, where R^7 is selected from the group consisting of hydrogen, a C_1-C_4 linear or branched alkyl group, and



and; R^6 represents a C_5-C_{35} linear or branched alkyl, alkenyl, or aryl group, and where the tertiary amino alkyl amide catalyst is acid-blocked.

2. The method of claim 1, wherein R^1, R^2, and R^3 each represent hydrogen.

3. The method of claim 1, wherein R^4 and R^5 each represent a methyl group when A represents N.

4. The method of claim 1, wherein R^4 and R^5 together represent $-CH_2CH_2N(CH_3)CH_2-$ when A represents CH.

5. The method of claim 1, wherein n represents 2 or 3.

6. The method of claim 1, wherein the tertiary amino alkyl amide catalyst composition is an N-(3-dimethylaminopropyl)-amide derived from an acid selected from the group consisting of 2-ethylhexanoic, coconut oil fatty, tall oil fatty, caproic, heptylic, caprylic, pelargonic, capric, hendecanoic, lauric, tridecanoic, myristic, pentadecanoic, palmitic, margaric, stearic, oleic, linoleic, linolenic, ricinoleic, nonadecanoic, arachidic, heneicosanoic, behenic, tricosanoic, lignoceric, pentacosanoic, cerotic, heptacosanoic, montanic, nonacosanoic, melissic, hentriacontanoic, dotriacontanoic, tritriacontanoic, tetracontanoic, hexatriacontanoic, 9-phenylstearic, and 10-phenylstearic acid.

7. The method of claim 6, wherein the acid is selected from the group consisting of 2-ethylhexanoic, coconut oil fatty, and tall oil fatty acids.

8. The method of claim 1, wherein the tertiary amino alkyl amide catalyst composition is an N-(2-dimethylaminoethyl)-amide derived from an acid selected from the group consisting of 2-ethylhexanoic, coconut oil fatty, tall oil fatty, caproic, heptylic, caprylic, pelargonic, capric, hendecanoic, lauric, tridecanoic, myristic, pentadecanoic, palmitic, margaric, stearic, oleic, linoleic, linolenic, ricinoleic, nonadecanoic, arachidic, heneicosanoic, behenic, tricosanoic, lignoceric, pentacosanoic, cerotic, heptacosanoic, montanic, nonacosanoic, melissic, hentriacontanoic, dotriacontanoic, tritriacontanoic, tetracontanoic, hexatriacontanoic, 9-phenylstearic, and 10-phenylstearic acid.

9. The method of claim 8, wherein the acid is selected from the group consisting of 2-ethylhexanoic, coconut oil fatty, and tall oil fatty acids.

10. The method of claim 1, wherein the tertiary amino alkyl amide catalyst composition is an N-methyl-3-aminoethyl pyrrolidine amide derived from an acid selected from the group consisting of 2-ethylhexanoic, coconut oil fatty, tall oil fatty, caproic, heptylic, caprylic, pelargonic, capric, hendecanoic, lauric, tridecanoic, myristic, pentadecanoic, palmitic, margaric, stearic, oleic, linoleic, linolenic, ricinoleic, nonadecanoic, arachidic, heneicosanoic, behenic, tricosanoic, lignoceric, pentacosanoic, cerotic, heptacosanoic, montanic, nonacosanoic, melissic, hentriacontanoic, dotriacontanoic, tritriacontanoic, tetracontanoic, hexatriacontanoic, 9-phenylstearic, and 10-phenylstearic acid.

11. The method of claim 10, wherein the acid is selected from the group consisting of 2-ethylhexanoic, coconut oil fatty, and tall oil fatty acids.

12. The method of claim 1, wherein the tertiary amino alkyl amide catalyst composition is a 4, 10-diaza-4, 10, 10-trimethyl-7-oxa-undecaamine amide derived from an acid selected from the group consisting of 2-ethylhexanoic, coconut oil fatty, tall oil fatty, caproic, heptylic, caprylic, pelargonic, capric, hendecanoic, lauric, tridecanoic, myristic, pentadecanoic, palmitic, margaric, stearic, oleic, linoleic, linolenic, ricinoleic, nonadecanoic, arachidic, heneicosanoic, behenic, tricosanoic, lignoceric, pentacosanoic, cerotic, heptacosanoic, montanic, nonacosanoic, melissic, hentriacontanoic, dotriacontanoic, tritriacontanoic, tetracontanoic, hexatriacontanoic, 9-phenylstearic, and 10-phenylstearic acid.

13. The method of claim 12, wherein the acid is selected from the group consisting of 2-ethylhexanoic, coconut oil fatty, and tall oil fatty acids.

14. The method of claim 1, wherein the tertiary amino alkyl amide catalyst composition is N-(3-dimethylaminopropyl)-2-ethyl-hexamide.

15. The method of claim 1, wherein the tertiary amino alkyl amide catalyst composition is N-(3-dimethylaminopropyl)-cocoamide.

16. The method of claim 1, wherein the tertiary amino alkyl amide catalyst composition is N-(3-dimethylaminopropyl)-tall oil amide.

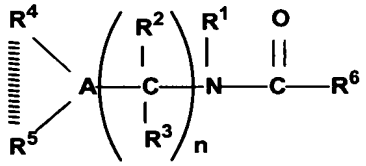
17. The method of claim 1, which comprises reacting the following components in parts by weight (pbw):

Polyol	20-100
Polymer Polyol	80-0
Silicone Surfactant	1-2.5
Blowing agent	2-4.5
Crosslinker	0.5-2
Catalyst	0.25-2
Isocyanate Index	70-115

18. The method of Claim 1 in which the catalyst composition is acid-blocked with a carboxylic acid.

19. The method of Claim 18 in which the carboxylic acid is formic acid, acetic acid, 2-ethyl-hexanoic acid, gluconic acid, or N-(2-hydroxyethyl)-iminodiacetic acid.

20. In a method for preparing a polyurethane foam which comprises reacting an organic polyisocyanate and a polyol in the presence of water as a blowing agent, a cell stabilizer, and a catalyst composition, the improvement of controlling and improving the porosity and openness of the foam which comprises using a tertiary amino alkyl amide catalyst composition represented by the formula I:



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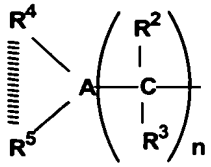

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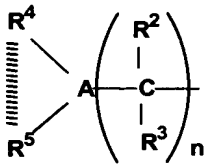

and; R^6 represents a C_5-C_{35} linear or branched alkyl, alkenyl, or aryl group, and where the tertiary amino alkyl amide catalyst is acid-blocked with a carboxylic acid.